

***KFUPM - COMPUTER ENGINEERING DEPARTMENT*****COE-540 – Computer Networks****Quiz 02 – Due Feb 25<sup>th</sup>, 2012 – Take home quiz****Student Name:****Student Number:**

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**(20 points)** Consider the example on CDMA presented in the authors' slide 30. The slide assumes that a 1 bit is represented by a positive voltage level while a 0 bit is represented by a negative voltage level. Given the shown codes for users A, B, and C, the example depicted in the slides assumes that user A sends bit equal to 1 while user B sends a bit equal to 0. User C does not send any signal. The example shows the composite signal S, and also shows the output resulting from each of the receiver branches A, B, and C.

It is required to repeat the example but using the following assumption: A, B, and C are transmitting 0, 1, and 1 bits, respectively. Draw the corresponding composite signal S and show the output of the three receiver branches A, B, and C. Does the receiver produce the correct output for each of the users?